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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,056	11/17/2003	Kui Wong Yeung	007198-550	1160

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BURNS DOANE SWECKER & MATHIS L L P
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EXAMINER

FORD, JOHN K

ART UNIT PAPER NUMBER

3753

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/713,056	Applicant(s) YEUNG, KUI WONG	
	Examiner John K. Ford	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/960,387
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/2/03</u> | 6) <input type="checkbox"/> Other: ____ |

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The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,684,939. Although the conflicting claims are not identical, they are not patentably distinct from each other because they claim the same invention more broadly in the current application than in the issued patent. The rationale for requiring terminal disclaimer in this particular situation is set forth in there Goodman case cited above.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 7-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant claims in claim 1 that the additional

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moving device is in series with one of the first or second air-moving devices. There is no original disclosure to support the limitation that the additional air moving device is in series with any air moving device but the first air-moving device. The alternative location: in series with the second air-moving device is not supported by original disclosure and is new matter.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 3, 7, 10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Kucharczyk (Figure 7) and JP 8-5091 and optionally Chapter 3 of ASHRAE Equipment to the extent that applicant's traverse the examiner's assertions of common knowledge in this field.

Figure 7 of Kucharczyk shows a filter 20 and a fan 30a and a heat exchanger 14 in series with respect to outdoor air flow drawn through conduit 8. No booster fan in series with fan 30a, between it and the filter 20, is shown.

JP 8-5091 teaches that two centrifugal fans 5 and 6 between an air filter 4 and a heat exchanger 7 can advantageously reduce noise relative to a single fan of corresponding capacity (the same reason applicant uses two centrifugal fans in series). To have added a centrifugal booster fan (such as shown by JP '091 at 5A) to Kucharczyk Figure 7, between centrifugal fan 30a and filter 20 to lower noise levels

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particularly when using high pressure drop filters (e.g. efficient HEPA – type filters) would have been obvious to one of ordinary skill in the art.

In the prosecution of the parent application (SN 09/960,387) applicant addressed remarks to this combination of references. Those remarks are addressed below:

Applicants remarks regarding the combined teachings of Kucharczyk (Figure 7) and JP 8-5091 are not convincing. On pages 13-15 of Paper NO.5 of SN 09/960,387, applicant argues that heat exchanger 7 of JP'091 is not an air- to air cross flow type and therefore of doubtful teaching value. The Examiner does not believe one of ordinary skill would be this myopic with regard to the teaching of the reference, namely that the two serially disposed centrifugal fans are quieter than enlarging a single centrifugal fan to compensate for the static pressure loss caused by an air filter. This is exactly the same problem that applicants discuss at page 10, lines 1-5 of the specification.

It is precisely for this reason that the Examiner believes one of ordinary skill apprised of the teaching of Kucharczyk (Fig 7)/ JP 8-5091 would have found it obvious to substitute two centrifugal fans in series in the fresh air stream rather than trying to oversize the fresh air centrifugal fan of Kucharczyk to compensate for the pressure drop across a filter, particularly when using a restrictive one such as a HEPA filter claimed in original claim 5 of SN 09/960,387. The Examiner does not believe such a clear teaching is "tainted with hindsight influence", as suggested by counsel.

Centrifugal fans inherently have discharges which are perpendicular to their inlets. See Chapter 3 from the 1983 ASHRAE Equipment volume, a handbook publication of this particular art area (heating, ventilating and air conditioning), not relied

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upon in the rejection except to illustrate common knowledge in this art. Regarding claim 7, the scroll portion of the additional centrifugal blower used in JP 8-5091 teaches orienting the flow towards the heat exchanger. ^{The} radial flow ~~from~~ from the blower wheel undergoes a change of direction as it passes through the scroll portion.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 10 above, and further in view of any one of Taylor, Von Resch or Martin.

These references each teach, individually, ^{access} ~~across~~ doors to permit servicing (e.g. cleaning or replacement) of the heat exchanger core. To have provided such accesses in Kucharczyk, if not already there, would have been obvious to permit routine maintenance to take place.

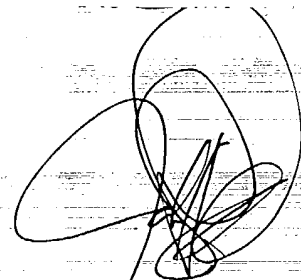
Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 8 and 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication should be directed to John Ford at telephone number ⁷⁰³ 308-2636.

Ford/DL

June 14, 2004



John K. Ford
Primary Examiner